

CLAIMS

What is claimed is:

1. A method of plotting numerical data, comprising:

5 selecting a root object;

presenting to a user for selection at least one filter, each of said at least one filter describing at least one of a type of objects and a type of relationships between objects, each type of objects and each type of relationships between objects being defined by a schema;

10 receiving one or more user-selected filters;

based on said one or more user-selected filters, selecting a set of objects, each object of said set being related to said root object either directly, or through a chain of intermediate objects, where each chain of intermediate objects has the same length and all objects at a given level of each chain have a relationship with a parent object which is identical, each object of said set containing numerical data having a format suitable for a mathematical analysis;

15 arranging said mathematical analysis of said numerical data; and

plotting a result of said mathematical analysis of said numerical data on a graph.

2. The method of claim 1, further comprising:

20 obtaining said schema; and

populating said schema with said root object and objects related to said root object.

3. The method of claim 1, wherein said schema has object descriptors for describing objects and relationship descriptors for describing possible relationships between objects, said schema associating specific relationship descriptors between specific

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object descriptors, and at least one of said object descriptors describing a type of numerical data.

4. The method of claim 3 wherein said one or more user-selected filters comprise at least one relationship filter describing a given relationship for selecting objects having said given relationship with a parent object, and at least one object filter describing a given object type for selecting objects having said given object type.

5. The method of claim 4 wherein said given relationship is one of an attribute relationship and a content relationship.

6. The method of claim 5 wherein at least one of said relationship descriptors describes a format relationship and said one or more user-selected filters comprise a format filter describing a given format for selecting objects containing numerical data having said given format.

7. The method of claim 1 wherein said root object is selected based on a user input.

8. The method of claim 1, further comprising selecting said mathematical analysis based on a user input.

9. The method of claim 1 wherein said presenting comprises displaying at least one menu having at least one selectable item.

10. The method of claim 9, wherein said at least one menu comprises at least one menu providing one or more relationships for selection, and at least one menu providing one or more types of objects for selection.

11. A manufacture comprising a computer readable medium containing computer executable code for plotting numerical data which when executed by a processor in a computer system, causes said computer system to:

select a root object;

25 presenting to a user for selection at least one filter, each of said at least one filter describing at least one of a type of objects and a type of relationships between

objects, each type of objects and each type of relationships between objects being defined by a schema;

5 based on said one or more user-selected filters, select a set of objects, each object of said set being related to said root object either directly, or through a chain of intermediate objects, where each chain of intermediate objects has the same length and all objects at a given level of each chain have a relationship with a parent object which is identical, each object of said set containing numerical data having a format suitable for a mathematical analysis; receive one or more user-selected filters;

10 arrange said mathematical analysis of said numerical data; and

plot a result of said mathematical analysis of said numerical data on a graph.

12. The manufacture of claim 11, wherein said computer executable code when executed by said processor in said computer system, further causes said computer system to:

15 obtain said schema; and

populate said schema with said root object and objects related to said root object.

13. The manufacture of claim 11, wherein said schema has object descriptors for describing objects and relationship descriptors for describing possible relationships between objects, said schema associating specific relationship descriptors between specific object descriptors, and at least one of said object descriptors 20 describing a type of numerical data.

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14. The manufacture of claim 13 wherein said one or more user-selected filters comprise at least one relationship filter describing a given relationship for selecting objects having said given relationship with a parent object, and at least one object filter describing a given object type for selecting objects having said given object type.

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15. The manufacture of claim 14 wherein said given relationship is one of an attribute relationship and a content relationship.

16. The manufacture of claim 15 wherein at least one of said relationship descriptors describes a format relationship and said one or more user-selected filters comprise a format filter describing a given format for selecting objects containing numerical data having said given format.

5 17. The manufacture of claim 11 wherein said root object is selected based on a user input.

10 18. The manufacture of claim 11, further comprising selecting said mathematical analysis based on a user input.

19. The manufacture of claim 11 wherein said presenting comprises displaying at least one menu having at least one selectable item.

15 20. The manufacture of claim 19 wherein said at least one menu comprises at least one menu providing one or more relationships for selection and at least one menu providing one or more types of objects for selection.

21. A computer system having a processor and a memory adapted for undertaking the method of claim 1.

22. A software tool for plotting numerical data, operable to:

select a root object;

20 present to a user for selection at least one filter, each of said at least one filter describing at least one of a type of objects and a type of relationships between objects, each type of objects and each type of relationships between objects being defined by a schema;

receive one or more user-selected filters;

25 based on said one or more user-selected filters, select a set of objects, each object of said set being related to said root object either directly, or through a chain of

intermediate objects, where each chain of intermediate objects has the same length and all objects at a given level of each chain have a relationship with a next higher object in said each chain which is identical, each object of said set containing numerical data having a format suitable for a mathematical analysis;

5 arrange said mathematical analysis of said numerical data; and

plot a result of said mathematical analysis of said numerical data on a graph.